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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/057,028      | 01/23/2002  | Lin Zhu              | O01-096A            | 3586             |

7590

02/03/2003

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EXAMINER

THOMPSON, KENNETH L

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/057,028

Applicant(s)

ZHU ET AL.

Examiner

Kenn Thompson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kempf, U.S. 3,052,107.

Regarding claim 1, Kempf discloses in figures 1 and 2 a shaft. Kempf discloses an outer member (1) having an inner surface describing a bore. Kempf discloses an inertial member (5) disposed within the bore and having an outer surface (5 at 4). Kempf discloses a resilient member (4) compressed between the outer member inner surface and the inertial member outer surface (col. 1, lines 50-52; col. 2, lines 8-10) for damping a shaft vibration (col. 1, lines 39-43).

As to claim 2, Kempf discloses a relief (5a) in the inertial member outer surface to mechanically engaging the resilient member.

As to claim 4, Kempf discloses the inertial member damps bending vibration (col. 1, lines 39-43).

As to claims 5 and 9, Kempf discloses the inertial member (6) having a groove (center opening of 6) extending parallel to a shaft center line.

As to claim 6, Kempf discloses a plurality of inertial members (5,6) engaged with a plurality of resilient members (4).

As to claim 7, Kempf discloses an inertial member (6,5) having an outer surface (5 at 4, 6 at 4). Kempf discloses a resilient member (4) engaged with the outer surface. Kempf discloses the resilient member having a resilient member outer surface (4 at 1) for engaging a shaft (1) bore.

As to claim 8, Kempf discloses a profile (6a, 5a) in the inertial member outer surface for mechanically engaging the resilient member (4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kempf, U.S. 3,052,107 in view of Haushalter, U.S. 3,077,090.

As to claim 3, Kempf discloses the resilient member (4) is compressed (col. 1, lines 50-52) between the inner surface and the outer surface. Kempf does not disclose the resilient member is compressed in a range of 5 to 50 percent of an uncompressed thickness. Haushalter teaches in figure 3 and 4 use of a resilient member (12) being compressed in a range of 5 to 50 percent of an uncompressed thickness (col. 2, lines 61-65) to frictionally engage the surfaces. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the resilient member disclosed by Kempf to be compressed in the range of 5 to 50 percent as taught by Haushalter to frictionally engage the surfaces.

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***Allowable Subject Matter***

Applicant should note that limitations drawn to the inertial member having a groove on the outer surface may positively affect patentability.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee et al., U.S. 6,336,986; Hamada, U.S. 5,326,324; Adams et al., U.S. 3,662,855 and Butler, Jr. et al., U.S. 3,075,406 disclose a similar shaft.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenn Thompson whose telephone number is 703 306-5760. The examiner can normally be reached on 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 703 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305-7687 for regular communications and 703 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-2168.

KT  
January 23, 2003

  
**Lynne H. Browne**  
**Supervisory Patent Examiner**  
**Group 3600**